

## A B S T R A C T

The present invention relates to a method of manufacturing an optical fibre by carrying out one or more a chemical vapour deposition reactions in a substrate tube, which method comprises the following steps:

- i) supplying one or more doped or undoped glass-forming precursors to the substrate tube,
- ii) supplying a stoichiometric excess of oxygen to the substrate tube,
- iii) setting up a reaction in the substrate tube between the reactants supplied in steps i) and ii) so as to effect the deposition of one or more glass layers on the interior of the substrate tube,
- iv) subjecting the substrate tube thus coated in step iii) to a collapsing process so as to form a preform, and finally
- v) drawing said preform into an optical fibre while heating the preform and subsequently cooling said optical fibre.